

## IN THE CLAIMS:

### Complete listing of the claims

Claim 1. (Currently amended) A semiconductor device characterized in that an interface layer, a diffusion suppressing layer and a high dielectric constant insulating film are sequentially formed in this order on one surface of a silicon substrate; and

the interface layer comprises an oxide of silicon formed so as to be mutually diffused with the silicon substrate, and a high dielectric constant metal element.

Claim 2. (Currently amended) A semiconductor device as in claim 1, wherein the interface layer ~~have~~has an equivalently converted SiO<sub>2</sub> thickness of 1.0 nm or smaller.

Claim 3. (Currently amended) A semiconductor device as in claim 1, wherein a high dielectric constant metal constitutional element in the constitutional element of the high dielectric constant insulating film is made the same as a part of the constitutional elements~~high dielectric constant constitutional element in~~ of the interface layer.

Claim 4. (Currently amended) A method for manufacturing a semiconductor device characterized by comprising:

forming, an initial layer on one surface of a silicon substrate, an initial layer which is a high dielectric constant metal element film for being mutually diffused with silicon in the silicon substrate;

forming a diffusion suppressing layer on the surface of the initial layer;

performing heat treatment to allow the high dielectric constant metal element film of the initial layer to become an interface layer~~be~~ mutually diffused with silicon in the silicon

substrate, thereby forming an interface layer; and

forming a high dielectric constant insulating film on the surface of the diffusion suppressing layer;

wherein the interface layer comprises an oxide of silicon.

Claim 5. (Currently amended) A method for manufacturing a semiconductor device characterized by comprising:

Forming, an initial layer on one surface of a silicon substrate, an initial layer which is a high dielectric constant metal element film for being mutually diffused with silicon in the silicon substrate;

forming a diffusion suppressing layer on the surface of the initial layer;

forming a high dielectric constant insulating film on the surface of the diffusion suppressing layer; and

performing heat treatment to allow the high dielectric constant metal element film of the initial layer to become an interface layer be mutually diffused with silicon in the silicon substrate, thereby forming an interface layer;

wherein the interface layer comprises an oxide of silicon.

Claim 6. (Currently amended) A semiconductor device as in claim 2, wherein a high dielectric constant metal constitutional element in the constitutional element of the high dielectric constant insulating film is made the same as a part of the constitutional elementshigh dielectric constant constitutional element in of the interface layer.